

5 **IMPLICIT LINKS SEARCH ENHANCEMENT SYSTEM
AND METHOD FOR SEARCH ENGINES USING IMPLICIT
LINKS GENERATED BY MINING USER ACCESS PATTERNS**

ABSTRACT OF THE DISCLOSURE

 An implicit links enhancement system and method for search engines that
generates implicit links obtained from mining user access logs to facilitate
10 enhanced local searching of web sites and intranets. The implicit links search
enhancement system and method includes extracting implicit links by mining
users' access patterns and then using a modified link analysis algorithm to re-
rank search results obtained from traditional search engines. More specifically,
the implicit links search enhancement method includes extracting implicit links
15 from a user access log, generating an implicit links graph from the extracted
implicit links, and computing page rankings using the implicit links graph. The
implicit links are extracted from the log using a two-item sequential pattern
mining technique. Search results obtained from a search engine are re-ranked
based on an implicit links analysis performed using an updated implicit links
20 graph, a modified re-ranking formula, and at least one re-ranking technique.